Elizabeth Cervantes, OSE, Jalayne Spivey, OSE, Amy Louise, OSE rectifying maps events in ArcGIS – Winter 05

The District I Office of the State Engineer in Albuquerque is leading the development of a digital mapping tool that will help water rights staff administer the Sandia Underground Basin in conjunction with WATERS. The Sandia Project is structured to the agency EGIS (Enterprise Geographic Information System) standards*. Map data generated from this project eventually will be synchronized with WATERS to provide an integrated management environment.

1. WHY SANDIA? The Sandia Underground Basin was selected for this project because the basin has been fully abstracted and imaged into WATERS. Also, District I supervisors are quality checking WATERS.

2. AVAILABLE DATA.
Available GIS data sets include historical aerial photography (1930s to 2004), county assessor parcel data, and some GPSed well data from Bernalillo County, New Mexico Environment Dept, and Office of the State Engineer.

3. DATA COLLECTION AND DEVELOPMENT. The District I Office has started the extensive fieldwork that is required to correctly locate and map water wells, surface diversions, irrigated lands, multipurpose lands, and ditches. A sampling of wells was GPSed using the EGIS Field Data Dictionary. The well data was down loaded into Pathfinder Office and saved as a shapefile (GPSed PODs and POUs). All non-domestic map events were down loaded from WATERS. The maps events were then rectified, vectorized, attributed, and saved as shapefiles (vectorized POUs).

Jalayne Spivey, OSE and Lloyd Valentine , OSE, are locating wells in the Sandia Basin with a GPS unit – Winter 05

4. PERSONAL GEODATABASE.

A simplified personal geodatabase was created to match the OSE EGIS database structure with fields that comply with OSE Field Data Collection standards. All GPSed PODs and POUs were imported into the geodatabase and attributes not collected in the field such as file number, owner, POU description, POD description, use, quantity, status and priority date were populated. The vectorized map events were also imported into the personal geodatabase.

5. HOT LINKS TO WATERS.

EWATERS hot links (URL addresses) for each POD and POU were copied and pasted into the geodatabase. These links will allow water rights administrators to evaluate a water right using map information, tabular data, and/or scanned paper documents within one environment.

6. GEODATABASE UPLOADED INTO ARCSDE.

The data from the personal geodatabase is imported routinely into the EGIS geodatabase where it can be accessed through ArcSDE . The data layers are then available for viewing on the Sandia Basin OSE Intranet ArcIMS site. View the Sandia Basin Digital Mapping Administrative Tool at: **http://rito.ose.state.nm.us**
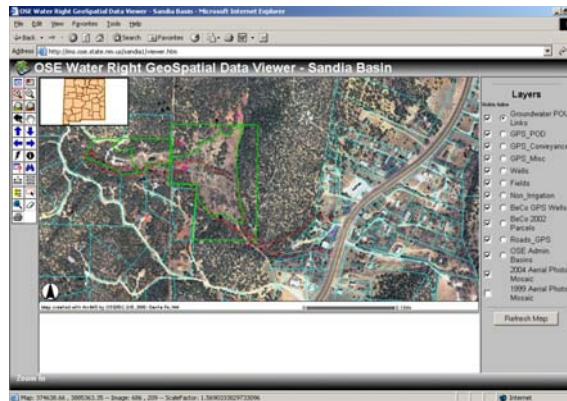
GeoSpatial Data Viewer

Sandia Basin Project Team:
Amy Louise – GIS Lead
Eric Robinson
Elizabeth Cervantes
Jalayne Spivey

Water Rights Office – District 1
Water Resource Allocation Program
NM Office of the State Engineer
Jess L. Ward, District Supervisor